

to a second set of the plurality of sets of mounting locations provided on said frame so that the second cartridge receiving device is located adjacent the first cartridge receiving device; or, in the alternative,

5 defining a second component configuration by mounting a third cartridge receiving device to a third set of the plurality of sets of mounting locations provided on said frame, said third cartridge receiving device in the second component configuration substantially replacing said first and second cartridge receiving devices in the first component configuration and vice-versa, so that a volumetric space occupied by said first and second cartridge receiving devices in the first component configuration is substantially occupied by said third cartridge receiving device in the second component configuration and vice-versa.

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R E M A R K S

The specification is amended. Claims 1, 10, 14, and 20 are amended. Claims 2-9, 11-13, and 15-19 stand as originally filed.

20 Re-examination and reconsideration are requested.

To facilitate entry of the amendments to the specification and claims, please find attached hereto a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS
25 TO SHOW CHANGES MADE."

In the office action, paper number 3, dated January 29, 2002, the examiner rejected claims 2, 4, 11, and 13-19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter 30 which the applicants regard as the invention. The examiner rejected claims 1, 3, 10, 12, 14, and 17-20 under 35 U.S.C. §102(b) as being anticipated by Kersey, et al., U.S. Patent No. 5,870,245 (Kersey). The examiner next rejected claims 1, 5-10;

and 14-16 under Section 102(e) as being anticipated by Smith, et al., U.S. Patent No. 5,995,477 (Smith). The examiner also rejected claims 2, 4, 11, and 13 under 35 U.S.C. § 103(a) as being obvious over Kersey.

5 Applicants believe that none of the currently-pending claims are anticipated by or obvious over the cited references and respectfully traverse the examiner's rejections for the reasons that will be set forth below.

Re the Specification:

10 The specification is amended to correct certain minor typographical errors. No new matter is introduced by the amendments.

Re the Claims:

15 Claim 1 is amended to recite that the first and second cartridge receiving devices "together occupy a volumetric space within the frame" and that the third cartridge receiving device occupies "substantially the same volumetric space within said frame as is occupied by said first and second cartridge receiving devices in said first component configuration."

20 Support for the amendments to claim 1 is found throughout the specification and specifically at, for example, page 9, lines 5-16.

25 Claim 10 is amended to recite that the third cartridge receiving device in the second component configuration substantially replaces "said first and second cartridge receiving devices in said first component configuration and vice-versa, so that a volumetric space occupied by said first and second cartridge receiving devices in said first component configuration is substantially occupied by said third cartridge receiving device in said second component configuration and vice-versa."

30 Support for the amendments to claim 10 is found throughout the specification and specifically at, for example, page 7, line

27 through page 8, line 2; and page 9, lines 5-16.

Claim 14 is amended to refer to "said frame means" and to recite that the third cartridge receiving means in the second component configuration substantially replaces "said first and second cartridge receiving means in said first component configuration and vice-versa so that a volumetric space occupied by said first and second cartridge receiving means in said first component configuration is substantially occupied by said third cartridge receiving means in said second component configuration and vice-versa."

Support for the amendments to claim 14 is found throughout the specification and specifically at, for example, page 7, line 27 through page 8, line 2; and page 9, lines 5-16.

Method claim 20 is amended to recite that the third cartridge receiving device in the second component configuration substantially replaces "said first and second cartridge receiving devices in said first component configuration and vice-versa, so that a volumetric space occupied by said first and second cartridge receiving devices in said first component configuration is substantially occupied by said third cartridge receiving device in said second component configuration and vice-versa."

Support for the amendments to claim 20 is found throughout the specification and specifically at, for example, page 7, line 27 through page 8, line 2; and page 9, lines 5-16.

Legal Standard for Rejecting Claims
Under 35 U.S.C. §112

The test for definiteness of claim language is whether a person having ordinary skill in the art would understand the bounds of the claim when read in light of the specification, and the degree of precision necessary for adequate claims depends on the nature of the subject matter. Miles Laboratories, Inc., v.

Shandon, Inc., 27 USPQ2d 1123 (Fed. Cir. 1993).

In the present application, the examiner rejected claims 2, 4, 11, and 13 under Section 112, second paragraph, stating that the terms "half-width" and "full-width" render the claims 5 indefinite. The examiner also rejected claims 14-19 under Section 112, stating that the reference to "said frame" in claim 14 was without sufficient antecedent basis. Applicants believe that this rejection has been successfully traversed in light of the amendments to claim 14 which change "said frame" to "said 10 frame means." Accordingly, the following discussion is limited to the examiner's rejections of claims 2, 4, 11, and 13.

The terms "half-width" and "full-width" are described in great detail at various places throughout the specification, and specifically at page 8, lines 8-29. That description is 15 paraphrased below to support applicants' position that the terms "half-width" and "full-width" are described in sufficient detail to allow persons having ordinary skill in the art to practice the invention.

Referring now to the specification at page 8, lines 8-29, 20 it is noted that the terms "half-height" and "full-height" are generally used by persons having ordinary skill in the art to describe disk or tape drive units having heights that conform to a standard form factor (in the case of a "full-height" drive). Drives that are about half the height of the standard form factor 25 are commonly referred to as "half-height" drives. The description goes on to specify that, in the context of one preferred embodiment of the invention, wherein the drives are turned on their sides (i.e., oriented vertically instead of horizontally), a "full-height" drive may be referred to in the alternative as a "full-width" drive, since the height becomes the width in a vertical arrangement. The specification similarly 30 mentions that a "half-height" drive may be referred to in the alternative as a "half-width" drive for the same reason.

Contrary to the assertion of the examiner, "half-width" and 35 "full-width" are not "standards" that may change over time.

Rather, they merely serve to refer to the relative sizes of certain drive types. This relative size comparison is particularly useful in the context of the invention which provides a reconfigurable cartridge processing module that may 5 accept either type of drive. Accordingly, persons having ordinary skill in the art, after having become familiar with the teachings of the present invention, will readily understand the terms "full-width" and "half-width" do not seek to define or conform to any particular standard that may change over time, but 10 rather refer to the relative sizes between the two types of drives.

Clearly, then, there can be no question but that the terms "half-width" and "full-width" are defined in the specification to a degree that is more than sufficient to allow persons having 15 ordinary skill in the art to understand the invention, as required by Miles Laboratories, supra.

With regard to the examiner's rejections of claims 2, 4, 11, and 13 under Section 112, second paragraph, applicants' note that it is well-established law that terms used in the claims are to 20 be interpreted in light of the specification as a whole, which includes the drawings and the written description. See, for example, United States v. Adams, 148 USPQ 479 (1966). Since the specification clearly defines the terms "half-width" and "full-width," as described above, the language of claims 2, 4, 11, and 25 13, as originally filed, is sufficiently definite under Section 112 as a matter of law. Therefore, applicants respectfully request the examiner to reconsider and withdraw his Section 112 rejections of claims 2, 4, 11, and 13.

30 Legal Standard For Rejecting Claims
Under 35 U.S.C. §§102 and 103

The standard for lack of novelty, that is, for "anticipation," under 35 U.S.C. §102 is one of strict identity. To anticipate a claim for a patent, a single prior source must

contain all its essential elements. Hybritech, Inc. v. Monoclonal Antibodies, Inc., 231 USPQ 81, 90 (Fed. Cir. 1986). Invalidity for anticipation requires that all of the elements and limitations of the claims be found within a single prior art reference. Scripps Clinic & Research Foundation v. Genentech, Inc., 18 USPQ2d 1001 (Fed. Cir. 1991). Furthermore, functional language, preambles, and language in "whereby," "thereby," and "adapted to" clauses cannot be disregarded. Pac-Tec, Inc. v. Amerace Corp., 14 USPQ2d 1871 (Fed. Cir. 1990).

The test for obviousness under 35 U.S.C. § 103 is whether the claimed invention would have been obvious to those skilled in the art in light of the knowledge made available by the reference or references. In re Donovan, 184 USPQ 414, 420, n. 3 (CCPA 1975). It requires consideration of the entirety of the disclosures of the references. In re Rinehart, 189 USPQ 143, 146 (CCPA 1976). All limitations of the claims must be considered. In re Boe, 184 USPQ 38, 40 (CCPA 1974). In making a determination as to obviousness, the references must be read without benefit of applicants' teachings. In re Meng, 181 USPQ 94, 97 (CCPA 1974). In addition, the propriety of a Section 103 rejection is to be determined by whether the reference teachings appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed substitution, combination, or other modifications. In re Lintner, 173 USPQ 560, 562 (CCPA 1972).

A basic mandate inherent in Section 103 is that a piecemeal reconstruction of prior art patents shall not be the basis for a holding of obviousness. It is impermissible within the framework of Section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. In re Kamm, 172 USPQ 298, 301-302 (CCPA 1972). Put somewhat differently, the fact that the inventions of the references and of the applicants may be

directed to concepts for solving the same problem does not serve as a basis for arbitrarily choosing elements from references to attempt to fashion applicants' claimed invention. In re Donovan, 184 USPQ 414, 420 (CCPA 1975).

5 In the case of In re Wright, 6 USPQ2d 1959 (Fed. Cir. 1988) (restricted on other grounds by In re Dillon, 16 USPQ2d 1897 (Fed. Cir. 1990), the CAFC decided that the Patent Office had improperly combined references which did not suggest the properties and results of the applicants' invention nor suggest
10 the claimed combination as a solution to the problem which applicants' invention solved. The CAFC reached this conclusion after an analysis of the prior case law, at p. 1961:

15 "We repeat the mandate of 35 U.S.C. §103: it is the invention as a whole that must be considered in obviousness determinations. The invention as a whole embraces the structure, its properties, and the problem it solves. See, e.g., Cable Electric Products, Inc. v. Genmark, Inc., 770 F.2d 1015, 1025, 226 USPQ 881, 886 (Fed. Cir. 1985) ("In evaluating obviousness, the hypothetical person of ordinary skill in the pertinent art is presumed to have the 'ability to select and utilize knowledge from other arts reasonably pertinent to [the] particular problem' to which the invention is directed"), quoting In re Angle, 444 F.2d 1168, 1171-72, 170 USPQ 285, 287-88 (CCPA 1971); In re Antonie, 559 F.2d 618, 619, 195 USPQ 6, 8 (CCPA 1977) ("In delineating the invention as a whole, we look not only at the claim in question... but also to those properties of the subject matter which are inherent in the subject matter
20 and are disclosed in the Specification") (emphasis in original).
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35 The determination of whether a novel structure is or is not "obvious" requires cognizance of the properties of that structure and the problem which it solves, viewed in light of the teachings of the prior art. See, e.g., In re Rinehart, 531 F.2d 1048, 1054, 189 USPQ 143, 149 (CCPA 1976) (the particular problem facing the inventor must be considered in determining obviousness); see also Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co., 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984) (it is error to focus "solely on the product created, rather than on the obviousness or notoriety of its creation") (quoting General Motors Corp. v. U.S. Int'l Trade Comm'n, 687 F.2d 476, 483, 215 USPQ 484, 489 (CCPA 1982), cert. denied, 459 U.S. 1105 (1983)).
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 Thus the question is whether what the inventor did would have been obvious to one of ordinary skill in the art

attempting to solve the problem upon which the inventor was working. Rinehart, 531 F.2d at 1054, 189 USPQ at 149; see also In re Benno, 768 F.2d 1340, 1345, 226 USPQ 683, 687 (Fed. Cir. 1985) ("appellant's problem" and the prior art present different problems requiring different solutions")."

A reference which teaches away from the applicants' invention may not properly be used in framing a 35 U.S.C. §103 rejection of applicants' claims. See United States v. Adams, 148 USPQ 429 (1966).

Argument:

Summary of Argument:

Neither Kersey nor Smith meet each and every limitation contained in the currently pending claims, as amended. Consequently, neither Kersey nor Smith anticipate the currently pending claims. With regard to the examiner's obviousness rejections under Section 103, Kersey fails to provide the motivation required to modify his device in a manner that would make obvious claims 2, 4, 11, and 13. Accordingly, the examiner's obviousness rejections are without merit and must be withdrawn.

Re The Rejections of Claims 1, 3, 10, 12, 14, and 17-20:

The examiner rejected claims 1, 3, 10, 12, 14, and 17-20 under 35 U.S.C. §102(b) as being anticipated by Kersey. However, the examiner's rejections of these claims are moot at least in light of the amendments to the claims. Specifically, claim 1 is amended to state that first and second cartridge receiving devices "together occupy a volumetric space within the frame" and that the third cartridge receiving device occupies "substantially the same volumetric space within said frame as is occupied by said first and second cartridge receiving devices in said first component configuration." These elements and limitations are not disclosed in or suggested by Kersey.

With reference to Figure 4b of Kersey, Kersey shows an arrangement expressed by the examiner to correspond to the first component configuration defined by claim 1. In this configuration, a tape drive 62 (expressed by the examiner to be a "first cartridge receiving device") is positioned above a cartridge rack 74 (expressed by the examiner to be a "second cartridge receiving device"). A second configuration is expressed by the examiner to be illustrated in Figure 4a. In this configuration, the cartridge rack 74 is absent, being replaced by another tape drive 62 (expressed by the examiner to be a "third cartridge receiving device"). However, the additional tape drive 62 of Figure 4a does not "occupy substantially the same volumetric space within said frame as is occupied by" the tape drive 62 and cartridge rack 74 of Figure 4b. Stated another way, in Kersey, the third cartridge receiving device (e.g., Kersey's tape drive 62) in the second configuration (Kersey's Figure 4a) does not occupy substantially the same space occupied by the first and second cartridge receiving devices (e.g., Kersey's tape drive 62 and rack 74) in the first configuration (Kersey's Figure 4b).

Since Kersey does not meet all of the limitations recited in amended claim 1, that is, since Kersey does not disclose or suggest an arrangement wherein first and second cartridge receiving devices "together occupy a volumetric space within said frame" and wherein a third cartridge receiving device occupies "substantially the same volumetric space within said frame as is occupied by said first and second cartridge receiving devices in said first component configuration," Kersey cannot anticipate amended claim 1.

Dependent claim 3 is believed to be allowable over Kersey in that it depends from claim 1, which is allowable over Kersey.

With regard to independent claim 10, Kersey also fails to disclose each and every element and limitation contained in amended claim 10. That is, Kersey fails to disclose or suggest a reconfigurable cartridge processing module wherein a "third

cartridge device in said second component configuration" substantially replaces "said first and second cartridge receiving devices in said first component configuration and vice-versa, so that a volumetric space occupied by said first and second cartridge receiving devices in said first component configuration is substantially occupied by said third cartridge receiving device in said second component configuration and vice-versa." Accordingly, claim 10, as amended, is allowable over Kersey.

Dependent claim 12 is believed to be allowable over Kersey in that it depends from claim 10, which is allowable over Kersey.

Claim 14, as amended, also defines subject matter that is not disclosed or suggested by Kersey. That is, Kersey does not disclose or suggest a reconfigurable cartridge processing module wherein a "third cartridge means in said second component configuration" substantially replaces "said first and second cartridge receiving means in said first component configuration and vice-versa, so that a volumetric space occupied by said first and second cartridge receiving means in said first component configuration is substantially occupied by said third cartridge receiving means in said second component configuration and vice-versa." Accordingly, claim 14, as amended, is allowable over Kersey.

Dependent claims 17, 18, and 19 are believed to be allowable over Kersey in that they depend from claim 14, which is allowable over Kersey.

Method claim 20, as amended, is also allowable over Kersey for substantially the same reasons set forth above for claims 1, 10, and 14. That is, Kersey does not disclose or suggest a method wherein a "third cartridge device in the second component configuration" substantially replaces "said first and second cartridge receiving devices in the first component configuration and vice-versa, so that a volumetric space occupied by said first and second cartridge receiving devices in the first component configuration is substantially occupied by said third cartridge receiving device in the second component configuration and vice-

versa."

Re The Rejections of Claims 1, 5-10, and 14-16:

The examiner rejected claims 1, 5-10, and 14-16 under 35 U.S.C. §102(e) as being anticipated by Smith. However, the 5 examiner's rejections of these claims are moot at least in light of the amendments to the claims.

Referring now to Smith, Figure 4 of Smith discloses an arrangement wherein a cartridge caddy 300 may be placed within a referencing sleeve 500 at various positions, indicated by 10 labels 414, 416, and 418. However, Smith's device does not meet the limitations of the currently pending claims, as amended. That is, while first and second caddies 300 positioned at 414 and 15 416 (expressed by the examiner to be a first configuration) define a volumetric space, that volumetric space is not the same as that occupied by another caddy 300 positioned at 418 (expressed by the examiner to be a second configuration). Accordingly, Smith does not meet the limitations of amended claim 20 1, which requires that the third cartridge receiving device occupy "substantially the same volumetric space within said frame as is occupied by said first and second cartridge receiving devices in said first component configuration." Amended claim 1 is, therefore, allowable over Smith.

Dependent claims 5-9 are believed to be allowable over Smith in that they depend from claim 1, which is allowable over Smith.

With regard to claim 10, Smith also fails to disclose each 25 and every element and limitation contained in amended claim 10. That is, in Smith, a third cartridge receiving device in a second component configuration (e.g., a caddy 300 in space 418) does not occupy substantially the same space occupied by first and second 30 cartridge receiving modules in a first component configuration (e.g., caddies 300 in spaces 414 and 416). Stated another way, Smith does not disclose or suggest an arrangement wherein a "third cartridge device in said second component configuration" substantially replaces "said first and second cartridge receiving

devices in said first component configuration and vice-versa, so
that a volumetric space occupied by said first and second
cartridge receiving devices in said first component configuration
is substantially occupied by said third cartridge receiving
5 device in said second component configuration and vice-versa."
Accordingly, claim 10, as amended, is allowable over Smith.

Claim 14, as amended, also defines subject matter that is
not disclosed or suggested by Smith. That is, Smith does not
disclose or suggest a reconfigurable cartridge processing module
10 wherein a "third cartridge means in said second component
configuration" substantially replaces "said first and second
cartridge receiving means in said first component configuration
and vice-versa, so that a volumetric space occupied by said first
and second cartridge receiving means in said first component
15 configuration is substantially occupied by said third cartridge
receiving means in said second component configuration and vice-
versa." Accordingly, claim 14, as amended, is allowable over
Smith.

Dependent claims 15 and 16 are believed to be allowable over
20 Smith in that they depend from claim 14, which is allowable over
Smith.

Re The Rejections of Claims 2, 4, 11, and 13:

The examiner rejected claims 2, 4, 11, and 13 under 35
U.S.C. §103(a) as being unpatentable over Kersey. In making
25 these rejections, the examiner admits that Kersey does not
disclose "half-width" and "full-width" cartridge receiving
devices, but that it would have been obvious for persons having
ordinary skill in the art to add such devices to the subject
matter of claims 1 and 10 in order to make obvious claims 2 and
30 4, and 11 and 13, respectively.

The examiner's rejections fail for two reasons. First,
amended claims 1 and 10 are allowable over Kersey, as described
above. Therefore, claims 2 and 4 (which depend from claim 1) and
claims 11 and 13 (which depend from claim 10) are allowable.

Second, the examiner's rejections erroneously focus on obviousness of the drives themselves (i.e., whether it would be obvious to make a half-width drive configuration based on a full-width drive configuration), not whether it would be obvious to incorporate such drives in apparatus defined by the claims of the present invention.

As stated in the specification (beginning on page 10, line 34 and continuing through page 12, line 17), an advantage of the present invention is that it provides a volumetrically efficient architecture for accommodating either full- or half-width cartridge read/write devices by allowing a full-width cartridge read/write device to be replaced with a half-width cartridge read/write device and a cartridge storage magazine. Stated another way, the volumetric space occupied by the full-width device is the same volumetric space that may be occupied by both the half-width read/write device and the storage magazine. The Kersey reference does not provide the suggestion or incentive for such a combination, nor has the examiner identified any express language in Kersey that would provide such a suggestion or incentive.

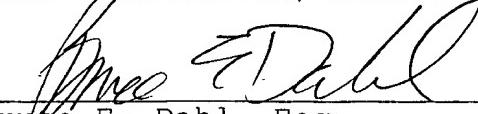
As the Court of Appeals recently stated in In re Lee, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002) the examiner can satisfy the burden of showing obviousness "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." Since Kersey provides no such objective teachings, Kersey cannot be used to establish the required prima-facie case of obviousness of claims 2, 4, 11, and 13.

Applicants believe that all of the claims now pending in this patent application are allowable and that all other issues raised by the examiner have been rectified. Therefore, applicants respectfully request the examiner to reconsider his rejections and to grant an early allowance. If any questions or issues remain to be resolved, the examiner is requested to

contact the applicants' attorney at the telephone number listed below.

Respectfully submitted,

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Date: 4-29-02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:)
COFFIN, Paul, C., et al.)
5 Serial No. 09/624,798) Examiner: Watko, J.A.
Filing Date: July 24, 2000) Group Art Unit: 2652
10 For: RECONFIGURABLE CARTRIDGE)
PROCESSING MODULE FOR STORING) Conf. No.: 6517
CARTRIDGE RECEIVING DEVICES)
IN A DATA STORAGE SYSTEM)

RECEIVED

MAY 07 2002

Technology Center 2600

VERSION WITH MARKINGS TO SHOW CHANGES MADE

15 In the Specification:
The paragraph beginning on page 1, line 24, and continuing through page 2, line 17 has been amended as follows:

20 The data storage system may also be provided with a cartridge access device for accessing the various data cartridges contained in the various cartridge receiving devices. The data storage system may also include a cartridge positioning system that is operatively associated with the cartridge access device. The cartridge positioning system is used to move the cartridge access device among the various cartridge receiving devices, thereby allowing the cartridge access device to access the data cartridges that may be contained in the various cartridge access devices. Typically, when certain data contained on a particular data cartridge [is] are desired, 25 a host computer system will issue a command to a control system associated with the data storage system. The control system then actuates the cartridge positioning system which moves the cartridge access device along the cartridge storage magazines until the cartridge access

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device is positioned adjacent the desired data cartridge. The cartridge access device then removes the data cartridge from the cartridge storage magazine and carries it to the cartridge read/write device. Thereafter, cartridge access
5 device inserts the selected data cartridge into the cartridge read/write device so that the host computer may read data from or write data to the selected data cartridge. After the read/write operation is complete, the cartridge access device may remove the data cartridge from the cartridge read/write device and return it to its
10 appropriate location in the cartridge storage magazine.

The paragraph on page 10, lines 13-33 has been amended as follows:

It is generally preferred, but not required, that the
15 devices 34 and 36 be mounted within the frame 18 so that the cartridge insert slot 44 of the second cartridge receiving device 36 is positioned adjacent and alongside the cartridge insert slot 42 of the first cartridge receiving device 34. So positioning the devices 34 and 36
20 so that their respective cartridge insert slots 42 and 44 are alongside one another reduces the time needed for the cartridge access device (not shown) to retrieve a data cartridge 56 contained within either the first or second cartridge receiving device 34 or 36 and to insert that data cartridge 56 into the other device. It is also preferable,
25 although not required, that the cartridge read/write device 46 be positioned so that its cartridge insert slot 54 is located at the same position as that of either of the cartridge insert slots 42 or 44 of the cartridge receiving devices 34 or 36. Such an arrangement allows the cartridge access device (not shown) to more easily adapt to either
30 the first component configuration 12 (Figure 1) or the

second component configuration 14 (Figure 2).

The paragraph beginning on page 11, line 26, and continuing through page 12, line 3 has been amended as follows:

Yet another advantage of the present invention is the
5 ease with which the module 10 can be reconfigured from the
first component [figuration] configuration 12 to the second
component configuration 14, and vice versa. As discussed
earlier, the process of installing and removing devices is
10 simple and convenient. Moreover, the present invention
does not require any mechanical changes to the
reconfigurable cartridge processing module 10 when
switching between the first and second component
configurations 12 and 14. Therefore, a user may easily
15 switch or reconfigure the module 10 between the first
component configuration 12 and the second component
configuration 14.

The paragraph on page 12, lines 4-17 has been amended as follows:

Still yet another advantage of the present invention
20 is that it is able to provide an additional cartridge
storage magazine without adding to the overall complexity
of the data storage system. Indeed, the same cartridge
access device (not shown) and cartridge positioning device
25 (not shown) can be used regardless of the configuration of
the reconfigurable cartridge processing module 10.
Moreover, since the cartridge insert slots 42, 44 of the
respective first and second cartridge receiving devices 34
and 36 are located adjacent and alongside one another in
the embodiment shown and described herein, the time needed
30 for the cartridge access device (not shown) to retrieve a
data cartridge 56 from one of the devices 34 or 36 and to

insert it into the other device is minimized.

The paragraph beginning on page 16, line 29, and continuing through page 17, line 8 has been amended as follows:

Referring now primarily to Figure 1, the first component configuration 12 may comprise a first cartridge receiving device 34 and a second cartridge receiving device 36. The first cartridge receiving device 34 may be provided with a chassis or housing 84 suitable for holding the various systems and components (not shown) that may be contained within device 34. The first cartridge receiving device 34 may comprise any of a wide range of [various different types of] cartridge receiving devices now known in the art or that may be developed in the future. In the embodiment shown and described herein, the first cartridge receiving device 34 comprises a half-width (i.e., half-height) cartridge read/write device of the type that [are] is well-known in the art and readily commercially available.

The paragraph on page 19, lines 17-25 has been amended as

follows:

The second cartridge receiving device 36 may also be provided with a chassis or housing 86 suitable for holding the various systems and components (not shown) that may be contained within device 36. By way of example, the second cartridge receiving device 36 may comprise a cartridge storage magazine. Alternatively, the second cartridge receiving device 36 may comprise any of a wide range of [various different types of] cartridge receiving devices now known in the art or that may be developed in the future.

In the Claims:

Please amend claims 1, 10, 14, and 20 as follows:

1. (Amended) A reconfigurable cartridge processing module for use in a data storage system, comprising:

5 a frame having a plurality of sets of mounting locations provided thereon so that said frame defines a first component configuration and a second component configuration, the first component configuration comprising:

10 a first cartridge receiving device mounted to a first set of the plurality of sets of mounting locations provided on said frame so that said first cartridge receiving device is located at a first position within said frame; and

15 a second cartridge receiving device mounted to a second set of the plurality of sets of mounting locations provided on said frame so that said second cartridge receiving device is located at a second position within said frame, said first and second cartridge receiving devices together occupying a volumetric space within said frame;

20 25 the second component configuration comprising a third cartridge receiving device mounted to a third set of the plurality of sets of mounting locations provided on said frame, said third cartridge receiving device occupying substantially the same volumetric space within said frame as is occupied by said first and second cartridge receiving devices in said first component configuration.

30 10. (Amended) A reconfigurable cartridge processing module for use in a data storage system, comprising:

a frame having a plurality of sets of mounting locations provided thereon so that said frame defines a first component configuration and a second component

configuration, the first component configuration comprising:

a first cartridge receiving device mounted to a first set of the plurality of sets of mounting locations provided on said frame so that said first cartridge receiving device is located at a first position within said frame; and

a second cartridge receiving device mounted to a second set of the plurality of sets of mounting locations provided on said frame so that said second cartridge receiving device is located at a second position within said frame, the second position being located adjacent the first position so that said second cartridge receiving device is located alongside said first cartridge receiving device;

the second component configuration comprising a third cartridge receiving device mounted to a third set of the plurality of sets of mounting locations provided on said frame, said third cartridge receiving device in said second component configuration substantially replacing said first and second cartridge receiving devices in said first component configuration and vice-versa, so that a volumetric space occupied by said first and second cartridge receiving devices in said first component configuration is substantially occupied by said third cartridge receiving device in said second component configuration and vice-versa.

14. (Amended) A reconfigurable cartridge processing module for use in a data storage system, comprising:

frame means for defining a first component configuration and a second component configuration, the first component configuration comprising:

first cartridge receiving means mounted to said frame means for receiving at least one data

cartridge; and

second cartridge receiving means mounted to said frame means for receiving said at least one data cartridge;

5 the second component configuration comprising third cartridge receiving means mounted to said frame means for receiving said at least one data cartridge, said third cartridge receiving means in said second component configuration replacing said first and second cartridge receiving means in said first component configuration and vice-versa so that a volumetric space occupied by said first and second cartridge receiving means in said first configuration is substantially occupied by said third cartridge receiving means in said second configuration and vice-versa.

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20. (Amended) A method, comprising:

providing a frame having a plurality of sets of mounting locations thereon;

20 defining a first component configuration by mounting a first cartridge receiving device to a first set of the plurality of sets of mounting locations provided on said frame and by mounting a second cartridge receiving device to a second set of the plurality of sets of mounting locations provided on said frame so that the second cartridge receiving device is located adjacent the first cartridge receiving device; or, in the alternative,

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30 defining a second component configuration by mounting a third cartridge receiving device to a third set of the plurality of sets of mounting locations provided on said frame, said third cartridge receiving device in the second component configuration substantially replacing said first and second cartridge receiving devices in the first component configuration and vice-versa, so that a volumetric space occupied by said first and second

cartridge receiving devices in the first component configuration is substantially occupied by said third cartridge receiving device in the second component configuration and vice-versa.